

Appl. No. 10/535,287
Amendment and/or Response
Reply to Office Action of December 20, 2006

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Amendments to the Claims:

A clean version of the entire set of pending claims (including amendments to the claims, if any) is submitted herewith per 37 CFR 1.121(c)(3). This listing of claims will replace all prior versions, and listings, of claims in the application.

Listing of Claims:

1. (ORIGINAL) A heating element comprising an electrically insulating layer and an electrically conductive layer, wherein at least the electrically conductive layer is based on a hybrid sol-gel precursor comprising an organosilane compound.
2. (ORIGINAL) A heating element according to claim 1, characterized in that the hybrid sol-gel precursor comprises a compound from the group of alkyl-alkoxysilanes.
3. (CANCELLED).
4. (CURRENTLY AMENDED) A heating element according to claim 1, ~~characterized in that~~wherein the electrically insulating layer comprises non-conductive particles.
5. (CURRENTLY AMENDED) A heating element according to claim 4, ~~characterized in that~~wherein the electrically insulating layer comprises anisotropic, non-conductive particles.
6. (CURRENTLY AMENDED) A heating element according to claim 1, ~~characterized in that~~wherein the electrically conductive layer comprises conductive and/or semi-conductive particles, as well as an amount of insulating particles in a quantity of 0-20 % by volume.

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7. (CURRENTLY AMENDED) A heating element according to claim 6, ~~characterized in that wherein~~ the electrically conductive layer comprises metal particles.

8. (CURRENTLY AMENDED) A heating element according to claim 7, ~~characterized in that wherein~~ the electrically conductive layer comprises silver or silver alloy particles.

9. (CURRENTLY AMENDED) A heating element according to claim 6, ~~characterized in that wherein~~ the electrically conductive layer comprises graphite or carbon-black particles.

10. (CURRENTLY AMENDED) A heating element according to claim 1, ~~characterized in that wherein~~ the electrically conductive layer does not exceed 30 mm in thickness and preferably does not exceed 15 mm in thickness.

11. (CURRENTLY AMENDED) A heating element according to claim 1 further comprising an insulating layer having a thickness of 25-100 mm, preferably 35-80 mm.

12. (CURRENTLY AMENDED) A heating element according to claim 1, wherein the heating element is applied on an aluminum or aluminum alloy substrate.

13. (CURRENTLY AMENDED) An electrical domestic appliance, comprising: at least
a heating element, which comprises:
an electrically insulating layer; and an electrically conductive layer;
wherein at least the electrically conductive layer is based on a hybrid sol-gel precursor
comprising an organosilane compound in accordance with claim 1.

14. (CURRENTLY AMENDED) An electrical domestic appliance according to claim 13, ~~characterized in that wherein~~ the electrical domestic appliance is one of: comprises a ~~(steam)~~ an iron, a hair dryer, a hair styler, a steamer, and a steam cleaner, a garment cleaner, a heated ironing board, a facial steamer, a kettle, a pressurized boiler for system

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irons and cleaners, a coffee maker, a deep fat fryer, a rice cooker, a sterilizer, a hot plate, a hot-pot, grill, a space heater, a waffle iron, a toaster, an oven, or a water [[flow]] heater.